

Amendment and Response to First Office Action
Docket No. 018.0304.US.UTL

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (currently amended): An electronic ear plug for providing a
2 programmable audible alarm, comprising:
3 an audible alarm circuit, comprising:
4 a memory provided separately within the audible alarm circuit to
5 store a user-settable time interval and at least one programmable alarm tone;
6 ~~[[aa]]~~ a leadless interface to receive and store a the user-settable
7 time interval and the at least one programmable alarm tone from an external
8 source and to store the user-settable time interval and the at least one
9 programmable alarm tone into [[a]] the memory; and
10 a countdown timer, comprising:
11 a clock circuit to commence timing upon activation of the
12 user-settable time interval; and
13 generating an alarm circuit to retrieve the at least one
14 programmable alarm tone from the memory and to generate the at least one
15 programmable alarm tone responsive to an expiry of the user-settable time
16 interval; and
17 an ear plug shaped on a distal end to be received by an ear and defining a
18 recess on a proximal end housing the audible alarm circuit.
- 1 2. (original): An electronic ear plug according to Claim 1, further
2 comprising:
3 a set of perforations defined on the distal end of the ear plug.
- 1 3. (currently amended): An electronic ear plug system comprising an
2 electronic ear plug according to Claim ~~[[1,]]~~ 1 and further comprising:

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3 an external recharging source removably coupled via the leadless interface
4 to the audible alarm circuit to recharge a power source provided therein.

1 4. (currently amended): An electronic ear plug system according to
2 Claim 3, further comprising:

3 an external case to house the external recharging source and comprising a
4 leadless recharging interface to the power source provided by the audible alarm
5 circuit,

1 5. (original): An electronic ear plug according to Claim 1, further
2 comprising:

3 a timer selector to provide at least one of an absolute user-settable time
4 interval and a relative user-settable time interval.

1 6. (original): An electronic ear plug according to Claim 1, wherein
2 the at least one programmable alarm tone comprises at least one of a conventional
3 buzzer, bell, voice, music, and electronically-reproducible sound.

1 7. (original): An electronic ear plug according to Claim 1, wherein
2 the ear plug comprises at least one of a soft-coated ear piece shaped to fit into an
3 ear canal and an ear piece shaped to fit conformably into a cavum conchae of an
4 outer ear.

1 8. (currently amended): An electronic ear apparatus for providing a
2 programmable audible alarm, comprising:

3 means for executing an audible alarm, comprising:

4 means for storing a user-settable time interval and at least one
5 programmable alarm tone, wherein the storing means is provided separately
6 within the executing means;

7 leadless means for receiving ~~and means for storing a~~ the user-
8 settable time interval and the at least one programmable alarm tone from an

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9 external source and means for saving the user-settable time interval and the at
10 least one programmable alarm tone into memory storing means; and
11 means for providing the audible alarm, comprising:
12 means for commencing timing upon activation of the user-
13 settable time interval; and
14 means for retrieving the user-settable time interval and the
15 at least one programmable alarm tone from the storing means and means for
16 generating the at least one programmable alarm tone responsive to an expiry of
17 the user-settable time interval; and
18 means for housing the executing means and means for receiving the
19 housing means into an ear.

1 9. (currently amended): A programmable ear plug system providing
2 an audible alarm, comprising:
3 a removable ear plug shaped on a distal end to be received by an ear and
4 integrating an audible alarm circuit on a proximal end, comprising:
5 a memory provided separately within the audible alarm circuit to
6 maintain a user-settable time interval and at least one programmable alarm tone;
7 ~~received over~~ a leadless interface to provide a programming
8 channel;
9 a countdown timer to commence timing upon activation of the
10 user-settable time interval;
11 ~~and generating an alarm circuit to retrieve the user-settable time~~
12 interval and the at least one programmable alarm tone from the memory and to
13 generate the at least one programmable alarm tone responsive to an expiry of the
14 user-settable time interval; and
15 a power supply to provide power to the memory and the
16 countdown timer and comprising a rechargeable power cell and a leadless
17 recharging interface included as part of the leadless interface; and
18 an external programmer removably interfaced to the removable ear plug
19 via the programming channel through the leadless interface and the recharging

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20 interface to respectively receive the user-settable time interval and the at least one
21 programmable alarm tone and the power to recharge to the rechargeable power
22 cell.

1 10. (currently amended): A programmable ear plug system according
2 to Claim 9, further comprising:
3 a carrying case to enclose the external programmer.

1 11. (currently amended): A programmable ear plug system according
2 to Claim 10, further comprising:
3 a set of conformable cavities within the carrying case configured to
4 receive the removable ear plug.

1 Claim 12 (canceled).

1 13. (currently amended): A programmable ear plug system according
2 to Claim 9, further comprising:
3 a mobile telephone adapter to enclose the external programmer.

1 14. (currently amended): A programmable ear plug system according
2 to Claim 9, further comprising:
3 a control set incorporated into the removable ear plug and providing
4 programming input control and logic to the programming channel.

1 15. (currently amended): A programmable ear plug system according
2 to Claim 9, wherein the rechargeable power cell comprises at least one of a
3 capacitor, battery, inductive power cell, and a disposable battery.

1 16. (currently amended): A programmable ear plug system according
2 to Claim 9, wherein the removable ear plug is provided in a set comprising a pair
3 of matched ear plugs.

1 17. (currently amended): A method for providing a programmable
2 audible alarm through an electronic ear plug, comprising:

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3 situating an electronic ear plug relative to a programming interface
4 removably disposed on an external programmer via a leadless interface, the
5 electronic ear plug comprising a removable ear plug shaped on a distal end to be
6 received by an ear and integrating an audible alarm circuit on a proximal end;
7 programming via the programming interface a user-settable time interval
8 and specifying at least one programmable alarm tone;
9 downloading the user-settable time interval and the at least one
10 programmable alarm tone into a memory provided separately within the audible
11 alarm circuit and maintained in the electronic ear plug; and
12 placing the electronic ear plug in an ear, wherein the audible alarm circuit
13 provides a clock circuit that commences timing upon activation of the user-
14 settable time interval and further provides an tone circuit that retrieves the at least
15 one programmable alarm tone from the memory and generates the at least one
16 programmable alarm tone responsive to an expiry of the user-settable time
17 interval.

1 18. (original): A method according to Claim 17, further comprising:
2 providing programming input control and logic through controls external
3 to the electronic ear plug.

1 19. (original): A method according to Claim 17, further comprising:
2 recharging the audible alarm circuit through an external programmer.

1 20. (original): A method according to Claim 17, wherein the user-
2 settable time interval comprises at least one of an absolute user-settable time
3 interval and a relative user-settable time interval.

1 21. (currently amended): A computer-readable storage medium
2 holding code for performing the programming step of the method according to
3 Claim 17.